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Policy-driven cost containment strategies for ADA mandated paratransit service: A case study of Capital Metropolitan Transportation Authority

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Policy-driven cost containment strategies for ADA mandated paratransit service: A case study of Capital Metropolitan Transportation Authority

by

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Abstract

Policy-driven cost containment strategies for ADA mandated paratransit service: A case study of Capital Metropolitan Transportation Authority

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This paper outlines five major policy change recommendations for Capital Metropolitan Transportation Authority's (Capital Metro) paratransit department called MetroAccess. These policy changes are recommended in response to Capital Metro's April 2010 audit from the Texas State Legislature's Sunset Advisory Commission. Overall these policy changes must achieve a mandated 10% cost reduction in the program.

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Foreword

The Americans with Disabilities Act (ADA) of 1990 introduced a requirement for all cities larger than 50,000 people that operate a fixed route transit system to provide comparable paratransit service. Paratransit service is intended to provide transit options for persons with disabilities who are unable to use fixed route bus service at the same level as persons who are not limited by a disability. Paratransit is not intended to meet all transportation needs for persons with disabilities, but rather to provide equal services to all transit users regardless of their disability status. The expectation of equal service means that if fixed route transit service is good, bad, or just mediocre, that is the same level of service a person with a qualifying disability should expect from paratransit.

The Capital Metro Transportation Authority's (Capital Metro) paratransit program is called MetroAccess. As with all Paratransit programs MetroAccess is a demand-response transportation (DRT) service that requires a passenger to schedule each trip at a specific time from one origin to one destination at a time. The paratransit vehicle picks the passenger up at their origin and then drops them off at their pre-scheduled destination. This form of mass transit allows persons with disabilities to live more independently, however the cost of providing this service is significantly more expensive than the fixed route bus system. One MetroAccess paratransit trip for Capital Metro costs taxpayers $38.10 per passenger while one trip on a fixed route bus costs $3.25 per passenger. The cost difference between these two transit trips reflects the reality that paratransit trips are over eleven times more expensive than fixed route trips (NTD Data, 2007).

The cost differential between paratransit and fixed route service is a concern with transit agencies across the country. Cost containment measures such as increased efficiency and better service utilization are common approaches used to address the cost

differential, but care must be taken to maintain compliance under the Federal Transportation Administration's ADA mandate under Part 37.123 of 49 Code of Federal Regulations (CFR).

The MetroAccess paratransit department has been under periodic review since 2003 to determine how to maintain a high level of customer service while maintaining control of increasing costs required to run the program. There have been over six reviews performed on the Capital Metro paratransit service during this time with many recommendations made for improving the service. Three policy changes were successfully vetted in the community and subsequently implemented in late 2009. These three changes, while providing positive results, only represent a small share of increased efficiencies that Capital Metro must obtain for long term sustainability. Capital Metro must continue to pursue and implement additional policy changes, no matter how unpopular, to capture significant efficiency gains and cost reductions.

In April of 2010 the State of Texas' Sunset Advisory Commission released a very critical report on Capital Metro stating: "Capital Metro faces a crisis that could threaten its ability to maintain current services unless the board takes immediate action to shore up the Authority's finances." The report continues with a recommendation that Capital Metro "…should evaluate, and take action on, measures to reduce costs and increase revenues" (Sunset Advisory Commission, 2010). The Commission's report addresses four areas: irresponsible management of finances; excessive cost of providing transit service; commuter rail safety; and community engagement. The MetroAccess program is the most expensive program on a cost per passenger basis that is operated by Capital Metro, so it is no surprise that the program is mentioned in all but the commuter rail section of the report. The most significant recommendation from the report related to paratransit is a call for MetroAccess to "Increase paratransit productivity to achieve a 10-

percent reduction in costs by revising policies that exceed Americans with Disabilities Act requirements" (Sunset Advisory Commission, 2010). This mandate from the Sunset Commission was clearly stated leaving Capital Metro with some very clear direction on the goal they must achieve.

This report provides a brief overview of paratransit and what Capital Metro is obligated to provide under federal laws; the costs of providing paratransit in Austin compared to peer cities around the country; and a comprehensive analysis of policy change recommendations. These recommended policy changes all share a goal of obtaining compliance with the Sunset Commission's 10% cost reduction mandate by increasing MetroAccess efficiency and refocusing the agency on providing paratransit service as it is defined in the Americans with Disabilities Act of 1990.

Chapter 1: Background on Paratransit and ADA Law in the United States

The Americans with Disabilities Act (ADA) of 1990 is a civil rights law that prohibits discrimination based on disability. The ADA provides similar protection from discrimination as the Civil Rights Act of 1964. The Act outlines provisions for employment, public entities including public transportation, public accommodations including commercial facilities, telecommunications, and many other areas where individuals with disabilities may not have an equal level of access as non-disabled individuals.

The overall goal of the Americans with Disabilities Act is to have a society that is inclusive and provides equal access to everyone, no matter their ability or disability. It is important to understand that the law does not seek to provide better services for persons with disabilities. The goal is to provide the same access to services and opportunities that are available to persons without disabilities.

Title II Part B of the ADA is of particular interest to transit entities because it is where the law mandates paratransit as a complement to fixed route service. This mandate was later codified in the Code of Federal Regulations Title 49 Subtitle A Part 37 (CFR 49 Part 37). These regulations explain the rules and requirements for providing paratransit service.

Paratransit is ADA-mandated transit that is both **"comparable"** and **"complementary"** to the fixed route service. **"Comparable**" transportation to that of fixed route means that paratransit is required to provide service comparable to the services received by non-disabled individuals on fixed route; not any better and not any worse.

* Same days of the week as fixed route

* Same hours of service as fixed route

* Service area up to ¾ mile from fixed route bus lines

* Similar ride length times

* Similar level of convenience

* No priority on trip purpose

"By '**complementary**,' we mean service that acts as a 'safety net' for individuals with disabilities who cannot use the fixed route system." (ADA CFR 49, 2009).

This part of the ADA does not attempt to meet *all* transportation needs of individuals with disabilities. The goal is to provide comparable service to persons with disabilities on par with the services received by non-disabled passengers who ride the regular fixed route buses.

The next chapter discusses the costs related to complying with the ADA's mandates related to providing transportation to persons with disabilities.

Chapter 2: Paratransit Costs

Costs Associated with Providing Mandatory Paratransit Service

Paratransit is a vital service for the nearly 7,000 registered passengers in the greater Austin area, but the costs for providing this service consumes a large portion of the Capital Metro budget for relatively few passengers (Evans, 2010). The projected paratransit expenses of $30.157 million outlined in Capital Metro's FY2010 budget represents 18.3% of the total Capital Metro budget. Ridership in 2010 for all Capital Metro services as projected by the Capital Metro's planning department will be nearly 31,769,000 passenger trips. Paratransit is expected to account for 2.2% of this ridership with only 698,389 passenger trips estimated for FY2010. This means that 2.2% of riders on all Capital Metro services account for a staggering 18.3% of the entire budget. This paper will identify how to lower the cost impact of this program through cost saving initiatives and to determine the impact these initiatives will have on the Capital Metro budget.

Paratransit service is one of the most expensive forms of public transit available. When compared to the cost of providing other forms of transit it is, on average, more than three times as expensive than any other mode of transit (NTD Data, 2007). The National Transit Database (NTD) is an agency established by the Federal Government to collect data from all agencies that receive funding from the Federal Transportation Administration. The NTD uses what is called an "unlinked passenger trip" as a standardized way to report costs among all transit agencies on all forms of transit across

the country. This method looks at each trip independently as one individual trip, from one origin to one destination, regardless of the transit rider travel patterns.

NTD reports that the national average of paratransit costs per ride in 2008 was $23.80 per unlinked passenger trip. The second most expensive mode of transportation after paratransit was commuter rail at an average of $7.20 per unlinked passenger trip (NTD Data, 2007).

This means that transportation authorities on average pay $23.80 each time a passenger is transported on a paratransit bus. Paratransit is the most expensive mode of mass transit in the United States followed at a distant second by commuter rail at $7.20 per unlinked passenger trip. The NTD numbers show that light rail, heavy rail, and bus are the three modes of transit with the lowest cost per passenger trip with costs of $2.20, $1.40, and $2.60 respectively (NTD Data, 2007).

Operating Expenses Per Unlinked Passenger Trip							
Year	Bus	Commuter Rail	Demand Response (Paratransit)	Heavy Rail (Adjusted)	Light Rail	Vanpool	Other Modes
2008	$2.60	$7.20	$23.80	$1.40	$2.20	$3.00	$3.20

SOURCE: National Transit Database

Table 1: Operating Expenses Per Unlinked Passenger Trip

WHERE DOES THE MONEY COME FROM?

Most transit agencies in the United States receive Federal funding administered through the Federal Transportation Administration (FTA). This funding typically requires matching funds at the local level. These matching funds are structured differently from one transit authority to another. Austin and Denver receive funds from a general sales tax, while Seattle and San Francisco use vehicle registration fees for some of their funding.

Other sources of funding include, but are not limited to, payroll taxes, casino revenues, toll way revenues, cigarette tax, parking fees, and property taxes (Goodwill and Carapella, 2008). There are many ways to generate local matching funds, but most of the options require some sort of tax on the local community.

Taxation is a very powerful and sometimes controversial tool for generating revenue, so there is added pressure from the public to spend this money in a financially responsible manner. The recipients of public money must act as a responsible consumer by getting the most value for the money spent.

ANALYSIS OF COSTS FROM CAPITAL METRO'S PEER CITIES

When comparing Capital Metro FY2008 expenses per unlinked passenger trip to the national averages it reveals that Capital Metro spends $0.58 more on fixed route bus, $14.61 more on paratransit, and $1.50 more on vanpool operations than the national average. There could be many reasons for these differences, such as average agency size,

Operating Expenses Per Unlinked Passenger Trip
CMTA vs. National Average

Year	Bus	Demand Response (Paratransit)	Vanpool
National Avg. 2008	$2.60	$23.80	$3.00
CMTA 2008	$3.18	$38.41	$4.50
Variance	**+$0.58**	**+$14.61**	**+$1.50**

SOURCE: National Transit Database

Table 2: Operating Expenses Per Unlinked Passenger Trip – Capital Metro vs. National Average

cost of living disparity, volume of service efficiencies/inefficiencies, or structure of bargaining labor contracts.

In 2008, the Capital Area Metropolitan Planning Organization (CAMPO) identified nine cities that have similar characteristics to Austin's transit system and currently uses these cities in their comparisons with Capital Metro. Capital Metro's nine peer cities are identified as Tampa, Charlotte, Louisville, Kansas City, Memphis, Indianapolis, Columbus, Sacramento, and Orlando (Cambridge Systematics Inc, 2008). The comparison of Austin against these cities provides a frame of reference to more accurately gauge how Capital Metro performs in relation to their peers on a national level.

Capital Metro performs well when comparing regular fixed route bus service to other agencies by having the lowest cost per unlinked passenger trip among all peer agencies. Demand-response paratransit services, however, are not as competitive. Capital Metro ranks the second highest for cost per unlinked passenger trip among peer cities at a

Operating Expenses Per Unlinked Passenger Trip CMTA vs. Peer City Agencies			
Year	**Bus**	**Demand Response (Paratransit)**	**Vanpool**
Tampa, FL	$3.88	$32.57	$4.48
Charlotte, NC	$4.18	$28.87	$2.93
Louisville, KY	$3.49	$27.94	
Kansas City, MO	$4.10	$20.83	$5.43
Memphis, TN	$3.86	$22.99	
Indianapolis, IN	$4.41	$34.38	
Columbus, OH	$4.25	$38.15	
Sacramento, CA	$4.97	$38.57	
Orlando, FL	$3.32	$33.49	$4.05
CMTA 2008	$3.18	$38.41	$4.50
Peer City Avg.	**$3.96**	**$31.62**	**$4.28**

SOURCE: National Transit Database

Table 3: Operating Expenses Per Unlinked Passenger Trip – Capital Metro vs. Peer City Agencies

rate of $38.41. Sacramento is the most expensive at $38.57, just $0.16 more expensive than Capital Metro. The average for all peer cities is $31.62, and the lowest cost per unlinked trip was Kansas City at $20.83.

Capital Metro services, when compared to the peer cities, are competitive for fixed route bus and vanpool costs. Paratransit services, however, are much less efficient than the average paratransit cost of $31.62 per unlinked passenger trip. The disparity between Capital Metro paratransit costs and the average peer city paratransit costs points to the need to analyze this gap at a higher level of detail.

Operating Expenses Per Unlinked Passenger Trip CMTA vs. Peer City Average			
Year	Bus	Demand Response (Paratransit)	Vanpool
Peer City Avg.	$3.96	$31.62	$4.28
CMTA 2008	$3.18	$38.41	$4.50
Variance	**-$0.78**	**+$6.79**	**+$0.22**

SOURCE: National Transit Database

Table 4: Operating Expenses Per Unlinked Passenger Trip – CAPITAL METRO vs. Peer City Average

CAPITAL METRO PARATRANSIT EFFICIENCY AND COST

Capital Metro Transportation Authority has the highest proportional cost for paratransit when compared to peer cities. The cost of providing paratransit service at Capital Metro is over eleven times more than the cost of providing a fixed route bus trip (NTD Data, 2007). This means that Capital Metro can transport more than eleven passengers on fixed route for the same cost of providing one trip on paratransit.

Sacramento was the only peer city with a higher cost per trip than Capital Metro but they are only able to transport eight passengers on the fixed route bus for every one paratransit trip provided (NTD Data, 2007). This shows that Sacramento's costs for providing transit are high across both modes whereas Capital Metro has a disproportionately expensive paratransit service compared to their fixed route bus service. Capital Metro has the highest paratransit cost to fixed route bus cost ratio which points to an inefficient paratransit system rather than an overall inefficient agency.

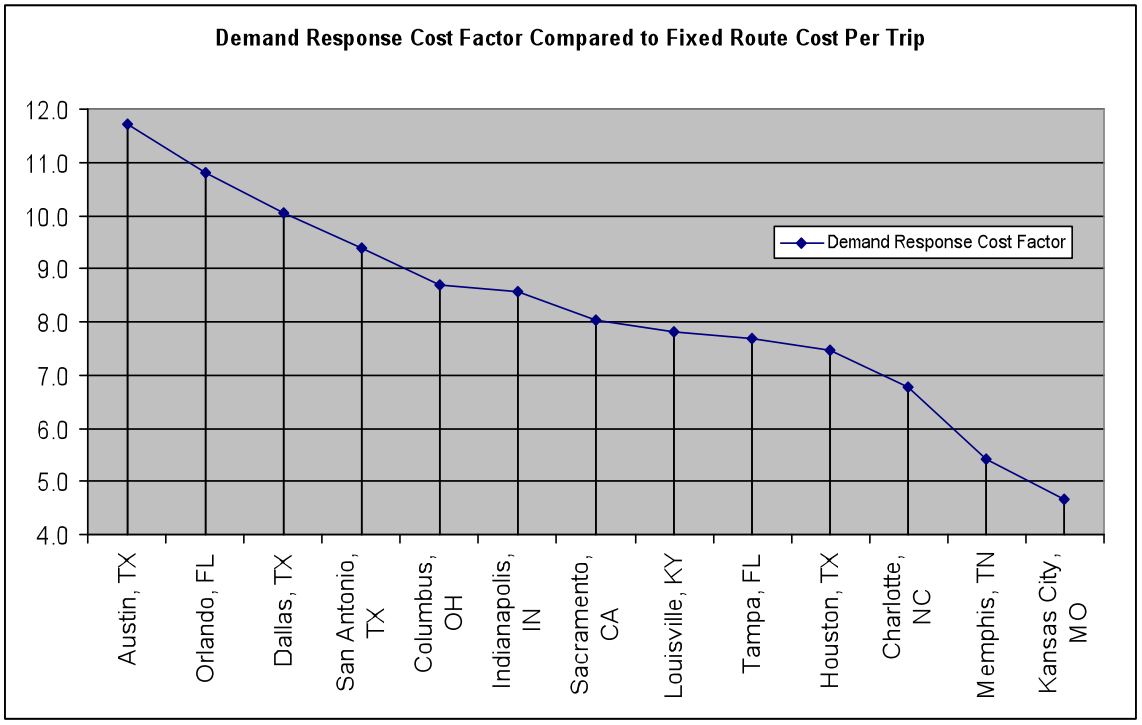

Figure 1: Demand Response Cost Factor Compared to Fixed Route Cost Per Trip

Capital Metro budget numbers from FY2010 show that 18.3% of the budget is being spent on only 2.2% of the total system riders (Approved Budget and Business Plan of Capital Metropolitan Transportation Authority, 2010). This disproportionate spending

on a minority number of transit riders begs further analysis as to where the money is going.

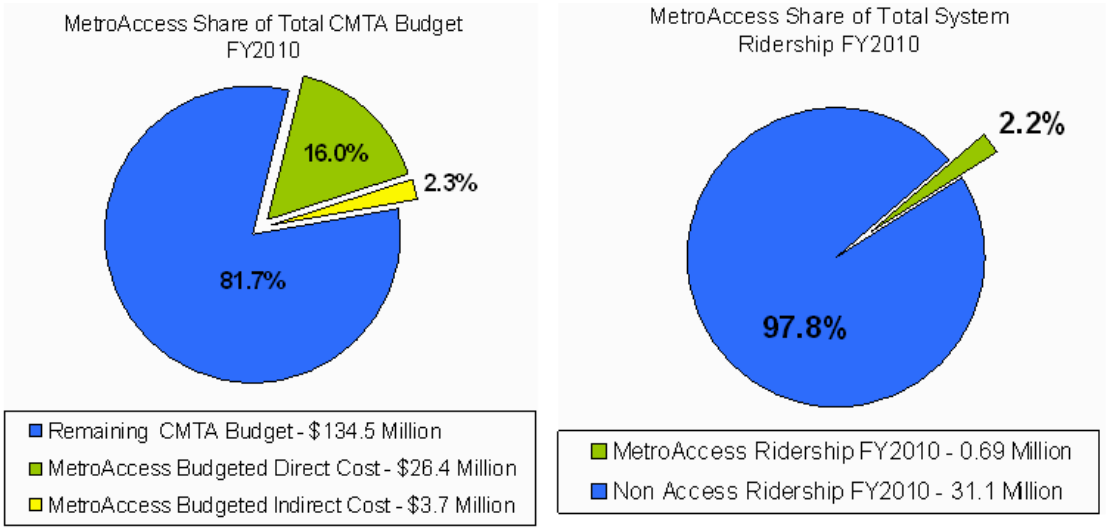

Figure 2: MetroAccess Share of Total CAPITAL METRO Budget (left) and Total System Ridership (right)

Chapter 3 explores how Capital Metro is spending too much money per unlinked passenger trip by identifying where the agency goes above and beyond what the federal government mandates in the Americans with Disabilities Act.

Chapter 3: Exceeding ADA Requirements

Five major Capital Metro paratransit policies go beyond what is required by the Americans with Disabilities Act (ADA) of 1990 and they should be immediately re-evaluated by Capital Metro. While there are no legal issues that come with providing service beyond what is required by the ADA, the high costs of doing so is placing Capital Metro's "…long-term financial viability at risk" (Sunset Advisory Commission, 2010).

Policies that should be reviewed right away are listed below in order of fiscal and budgetary impact starting from the largest. Chapters 4 through 8 will explore each of these policies in more detail.

1. Eligibility to receive paratransit service is done through a process that allows the passenger to certify themselves through a paper application in conjunction with a professional verification (Capital Metro, 2002).

> ***ADA requirement:*** *Does not specify, but Industry "best practice" is to require standardized in-person functional assessments to determine the applicants' ability to access fixed route bus service* (TranSystems Inc, 2003).

2. Taxi voucher program allows ambulatory passengers, persons who are able to walk, to receive a heavily subsidized direct trip on a taxi for qualifying return trips from grocery stores, jury duty, medical appointments, returning from out-of-town travel, service animal appointments, rehabilitation, therapy, or court appointments. The passenger pays the regular fare to the taxi driver and can travel up to 6.1 miles for no additional cost. Passengers must pay full fare for any portion of the trip that exceeds 6.1 miles (Capital Metro, 2002).

ADA requirement: *Not a legally required service* (Sunset Advisory Commission, 2010).

3. "Open Return" program allows the passenger to call dispatch and have a vehicle sent when the passenger is ready to leave their location. This is available only for qualifying return trips from medical trips, jury duty, and return from travel (Capital Metro, 2002).

ADA requirement: *Not a legally required service* (Sunset Advisory Commission, 2010).

4. Three-quarter mile service area currently allows 395 "grandfathered" passengers living outside of the current service area to receive services (Texas Transportation Institute, May 2009)

ADA Requirement: *Service must be provided at a minimum distance of three-quarter mile in any direction from all non-commuter or express bus and rail routes* (ADA CFR 49, 2009).

5. Door-through-Door service requires a paratransit vehicle operator to enter all non-residential buildings at the origin and destination for the purpose of assisting passengers (Capital Metro, 2002).

ADA requirement: *Pick up and drop off at the curb (curb-to-curb service) of the location, but if requested then an operator must escort the passenger up to but not past the door (*ADA CFR 49, 2009*). The current service of door-through-door is not required under the ADA* (Sunset Advisory Commission, 2010).

Chapter 4: The Paratransit Service Eligibility Process Change Options and Outcomes

ELIGIBILITY POLICY EXPLANATION

MetroAccess passengers must go through a certification process to receive eligibility for the MetroAccess paratransit service (Capital Metro, 2002). Only people who are certified as eligible may schedule rides on the service. The Americans with Disabilities Act does not specify a process for how transit agencies are expected to determine eligibility, but it clearly states the criteria that must be used to make the determination. The criteria are broken down into three categories as listed below:

ADA Category 1:

"Any individual with a disability who is unable, as the result of a physical or mental impairment (including a vision impairment), and without the assistance of another individual (except the operator of a wheelchair lift or other boarding assistance device), to board, ride, or disembark from any vehicle on the system which is readily accessible to and usable by individuals with disabilities" (ADA CFR 49 37.123(e)(1), 2009).

ADA Category 2:

"Any individual with a disability who needs the assistance of a wheelchair lift or other boarding assistance device and is able, with such assistance, to board, ride, and disembark from any vehicle which is readily accessible to and usable by individuals with disabilities if the individual wants to travel on a route of the system during the hours of operation of the system at a time, or within a reasonable period of such time, when such a vehicle is not being used to provide designated public transportation on the route" (ADA CFR 49 37.123(e)(2), 2009).

ADA Category 3:

"Any individual with a disability who has a specific impairment-related condition which prevents such individual from traveling to a boarding location or from a disembarking location on such system" (ADA CFR 49 37.123(e)(3), 2009).

The three ADA categories and the criteria identified do not clearly indicate any one way to determine if an applicant should be found wholly or partially eligible for service. The core question being addressed in the eligibility process is whether or not a passenger is physically able to ride the fixed route bus system, either some or all of the time. Depending on the passenger's ability they could qualify for service under one of these three categories commonly referred to as ADA1, ADA2, and ADA3.

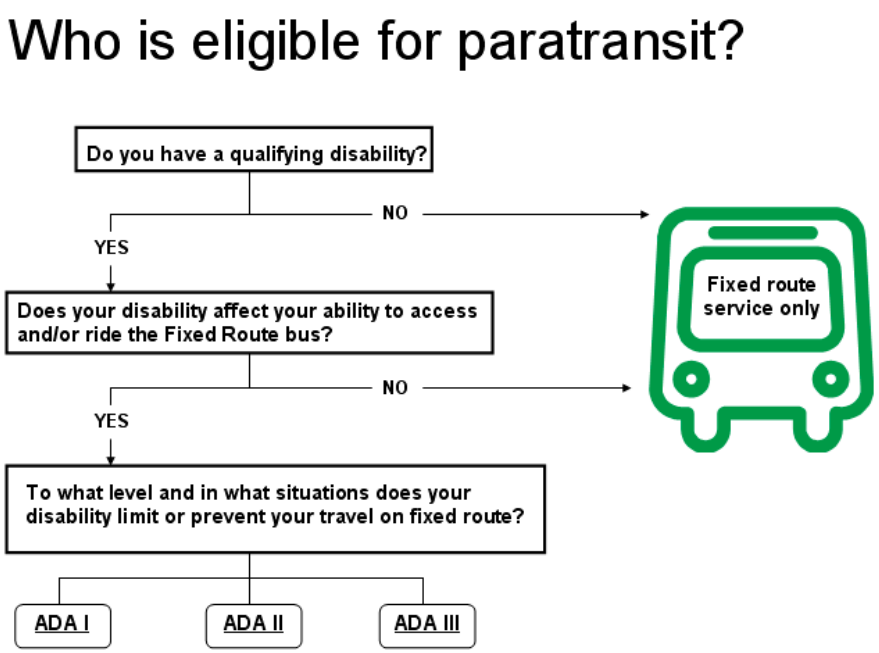

Figure 3: Who is Eligible for Paratransit?

PARATRANSIT ELIGIBILITY CERTIFICATION OPTIONS

Since federal guidelines do not dictate a process for determining eligibility it is up to each transit agency to create a fair and transparent process. Transit agencies will often

use a mix of processes to determine eligibility; the most common of these processes are outlined below (TranSystems Inc, 2003).

Self-certification ***Accuracy:* LOW** ***Cost:* LOW**

Relies on the applicant to accurately and truthfully fill out the application. Peoples' perception of their own abilities can vary greatly from one person to another leading to inaccurate eligibility determinations (TranSystems Inc, 2003).

Self-certification with professional verification ***Accuracy:* LOW-MEDIUM** ***Cost:* LOW**

Relies on the applicant to fill out the paperwork, but the accuracy increases with the added requirement to have a professional verify that the information about the applicant is correct. Various outcomes occur depending on the professional completing the documentation. Often the professionals focus on disability, rather than the ability of the person to ride fixed route (TranSystems Inc, 2003).

In-person interview ***Accuracy:* HIGH** ***Cost:* HIGH**

Requires that some or all applicants receive a face-to-face interview with a representative of the transit agency to determine the level of service for which the applicant does or does not qualify. Relying on trained transit professionals to determine the applicant's ability to ride the fixed route system results in consistent determinations (TranSystems Inc, 2003).

Functional Assessment ***Accuracy: HIGHEST*** ***Cost: HIGH***

Requires some or all applicants to undergo a series of specific tasks and tests for accurately determining their functional ability to access some or all of the fixed bus route system. This is the most accurate system available for eligibility determinations because it involves a medical professional and a transit professional (TranSystems Inc, 2003).

Certification of eligibility for MetroAccess is currently done through a process that is called self-certification with professional verification (Capital Metro, 2002). The MetroAccess applicant fills out an official form from Capital Metro containing a series of questions about their disability and how that disability prevents them from accessing any part of the regular fixed route bus system. There is a second part of this form that must be filled out by a qualified professional such as a physician, chiropractor, social worker, psychologist, caseworker, or similar professional who is able to communicate with Capital Metro about the applicant's functional abilities as they relate to traveling on the bus.

PARATRANSIT ELIGIBILITY POLICY RECOMMENDATIONS

The recommendation for transitioning to a new hybrid eligibility process is one that includes in-person and functional assessments. The recommendation is based on Project Action's guide titled "Determining ADA Paratransit Eligibility: an Approach, Guidance, and Training Materials" (TranSystems Inc, 2003). This guide was created through a cooperative agreement between the Department of Transportation and the

Federal Transportation Administration, and is therefore considered the benchmark for paratransit policy. The process is as follows:

1. All applicants complete a small eligibility application to determine if paratransit is the appropriate service for them.

2. All applicants come to a Capital Metro facility for an in-person interview and photograph.

3. Passengers who do not clearly qualify for service during the interview are forwarded to a trained medical professional or an orientation and mobility specialist for an in-person functional assessment.

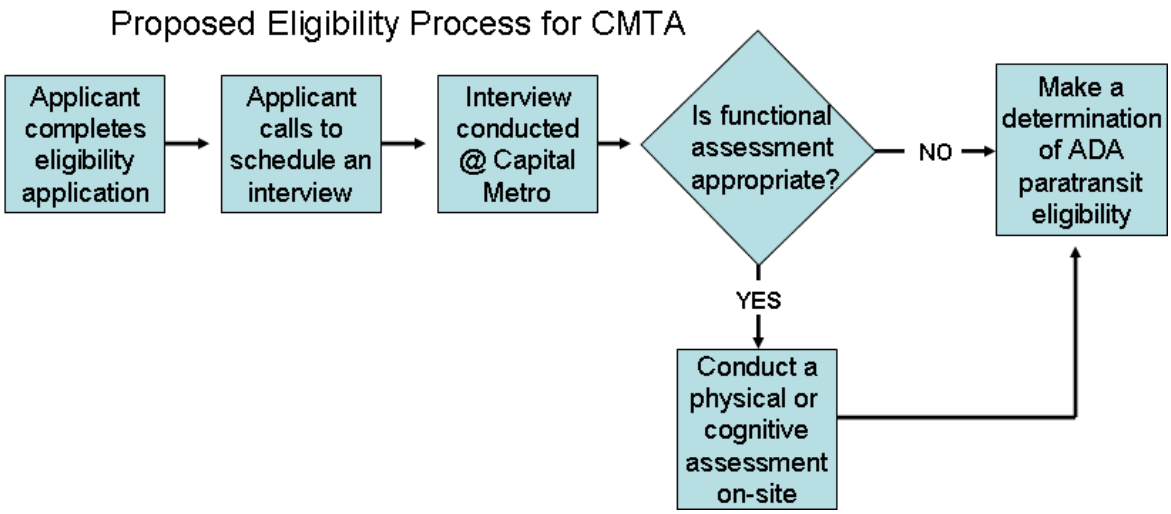

Figure 4: Proposed Eligibility Process for Capital Metro

The current MetroAccess eligibility process of self-certification with professional verification has many failures, the most important of these being the inconsistency of the outcomes. Two passengers with the same functional abilities are not always given the same level of service. The eligibility determination depends on how well a passenger and their doctor are able to communicate mobility challenges through a paper application.

Passengers may over or under report their abilities, language barriers can create miscommunication, and medical professionals often only specialize in one disability whereas a passenger may have an assortment of disabilities that create the mobility challenges (Evans, 2010).

Three major independent process review reports each examined the current eligibility process and recommended that Capital Metro's paratransit service transition to a stricter process:

> **2003: Pritchard and Kopke: Recommendations FY 2003 – 2004**
> "Consider moving to a functional process for ADA complementary paratransit certification in effort to slow demand, minimize expense, and ensure that those eligible are able to receive the service that the regulations require."
>
> **2006: KFH Group, Inc. February 2006**
> Recommend in-person assessments and a "more stringent eligibility process".
>
> **2007: Texas Transportation Institute: October 2007**
> Recommend that eligibility require an in person interview.

Most of Capital Metro's peer cities, as identified by CAMPO in 2008, do perform some level of functional assessments for paratransit eligibility. Kansas City is the only one of the nine peer agencies not performing functional assessments (Kansas City Area Transportation Authority Share-a-Fare Rider Guide, 2008). Texas transit agencies show similar numbers with five of the seven other major cities in Texas performing some level of functional assessments (Arndt and Edrington, 2007).

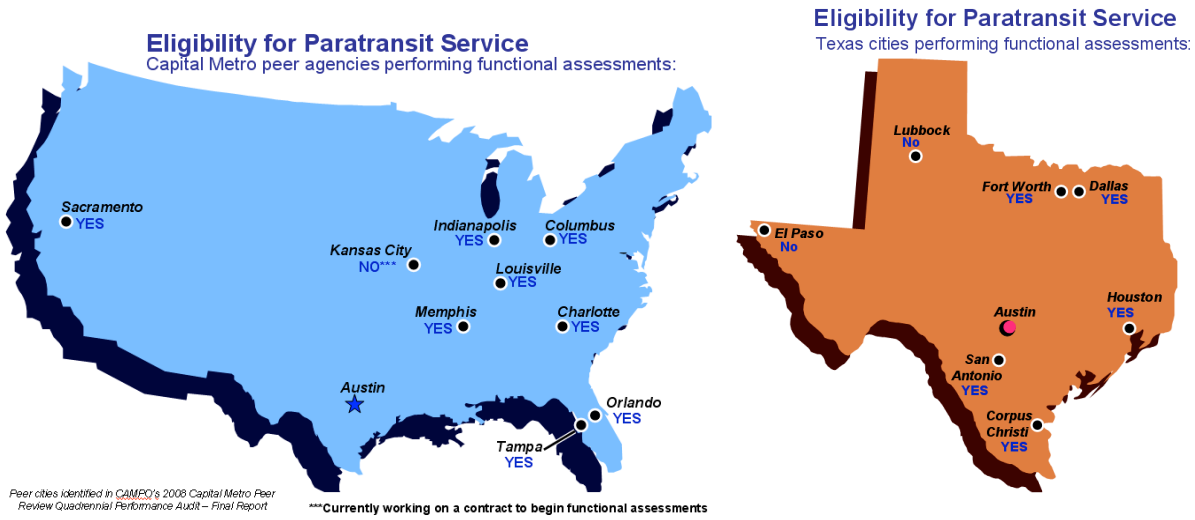

Figure 5: Eligibility for Paratransit Service

ANTICIPATED EFFICIENCIES

Capital Metro anticipates a significant savings within the first two years of implementing a policy to restructure the eligibility process (Evans, 2010). The cost savings timeframe is based on the time it will take to have all passengers cycle through the current two-year eligibility period. Analysis of in-person assessments and functional evaluation savings will be kept separate for this analysis because these processes are not inherently linked to each other. The authority would be able to create a process that encompasses either one or both of these options. Following the cost savings will be an analysis of the cash outlay necessary to implement these options. The difference between costs and savings will show the anticipated savings associated with the different options. For this analysis the previously quoted 2007 NTD cost per trip of $38.41 was previously used for cost comparison to other agencies and will no longer be used. The directly operated cost of $31.62 per passenger trip will be used instead in the analysis below. This

number was provided in July 2010 from Capital Metro's Finance Department and reflects the direct operation cost per trip rather than a fully allocated cost because some costs such as information technology or payroll processing would not be effected directly by changes in the number of trips provided (Hume, 2010).

TOTAL SAVINGS:

(1) In-person assessment = $5.4 million total savings in years one and two

The basis for cost savings estimates related to in-person assessments comes from the Texas Transportation Institute (TTI). TTI completed a "Paratransit Service Review" in October 2007. One of the main outcomes contained in this review is a recommendation for Capital Metro to move to an in-person interview process for eligibility. TTI's finding was that "an additional 18% [of total applications] would be denied eligibility and of these 50% would have been active riders" (TTI, October 2007). TTI continues to clarify that this 18% is in addition to applications already being denied.

Metro Access
FY2009 Eligibility Numbers:

Total New Applications:	2,208
Total Recertifications:	2,292
TOTAL APPLICATIONS:	4,500
TOTAL APPROVED:	3,845
TOTAL DENIED:	429

AVG Monthly total applications: 375

Figure 6: MetroAccess FY2009 Eligibility Numbers

Fiscal year 2009 contains the most recent data and is being used for this analysis (Capital Metro, 2009). In that year 4,500 applications were received. Based on TTI's findings 18% of those applications would be expected to be denied. This means that 810 additional applications per year would be denied in addition to the 429 applications that are already being denied. Of these 810 additional passengers to be denied from service, half (or about 405) will be current passengers who don't qualify while the other half accounts for the increased number of new applicants who will be denied.

With the assumption that an additional 810 passengers will not be given eligibility under this new system it becomes easier to calculate the amount of money that Capital Metro's paratransit system will avoid spending. Passengers in the paratransit program take on average 101.88 trips per year (Turner, 2010). This number will be used throughout this analysis as the baseline number for average trips per paratransit passenger. Broken down further, this equals 8.49 trips per month at a direct cost of $31.62 per trip. Applications are received year round, so the avoidance of providing trips for 810 passengers does not happen at the beginning of the fiscal year. To give weight to the analysis only $1/12^{th}$ of the 810 will not be granted access to the system each month. In month one, in-person assessments will account for 67.5 less passengers while the next month an additional 67.5 passengers will not be certified for a total of 135 passengers in month two, and so on until month twelve when the total of 810 passengers is reached. Month one cost avoidance equals 67.5 passengers multiplied by 8.49 trips and then multiplied by the average cost per trip of $31.62 for a total savings in month one of $18,121. In month two this number will double and in month three it will triple until the month twelve savings reach $217,448. Adding the savings each month into one cumulative number brings the total twelve month savings related to in-person interviews to $1,413,409.

Eligibility for Capital Metro's paratransit service lasts for two years, so in order to capture a more accurate picture of total cost avoidance anticipated once all current and new passengers go through the process the second twelve month period could expect to have a cost avoidance amount under this model of $4,022,780 (see table 5).

IN-PERSON INTERVIEWS

	YEAR 1				YEAR 2		
	Denied passengers	Trips saved per month	Monthly savings		Denied passengers	Trips saved per month	Monthly savings
Month 1:	67.5	573.1	$18,121	*Month 13:*	877.5	7,450.0	$235,568
Month 2:	135.0	1,146.2	$36,241	*Month 14:*	945.0	8,023.1	$253,689
Month 3:	202.5	1,719.2	$54,362	*Month 15:*	1,012.5	8,596.1	$271,809
Month 4:	270.0	2,292.3	$72,483	*Month 16:*	1,080.0	9,169.2	$289,930
Month 5:	337.5	2,865.4	$90,603	*Month 17:*	1,147.5	9,742.3	$308,051
Month 6:	405.0	3,438.5	$108,724	*Month 18:*	1,215.0	10,315.4	$326,171
Month 7:	472.5	4,011.5	$126,844	*Month 19:*	1,282.5	10,888.4	$344,292
Month 8:	540.0	4,584.6	$144,965	*Month 20:*	1,350.0	11,461.5	$362,413
Month 9:	607.5	5,157.7	$163,086	*Month 21:*	1,417.5	12,034.6	$380,533
Month 10:	675.0	5,730.8	$181,206	*Month 22:*	1,485.0	12,607.7	$398,654
Month 11:	742.5	6,303.8	$199,327	*Month 23:*	1,552.5	13,180.7	$416,775
Month 12:	810.0	6,876.9	$217,448	*Month 24:*	1,620.0	13,753.8	$434,895
	Year 1 Savings:	**$1,413,409**			**Year 2 Savings:**	**$4,022,780**	

Table 5: In-Person Interviews

KFH Group is another consulting firm that analyzed Capital Metro's paratransit program in 2006 with a report titled "Findings and Recommendations Final Report". Findings from this report state: "Capital Metro should develop and transition to a process that requires most individuals to come for an interview" (KFH Group, 2006). The report continues to point out that the number of applications received could be reduced up to an estimated 25%. While this percentage is an estimation by the consulting firm, Capital Metro cannot ignore an opportunity such as this to potentially realize large gains in

efficiencies. This estimate from the report would require more analysis, but to see what efficiencies this estimate might generate the following analysis could be used.

Assuming a reduction of total applications from 4,500 at a rate of 25% the new amount of applications received per year could be as low as 3,375. Using this reduced number of 3,375 applications at the FY2009 approval rate of 85.4% Capital Metro could potentially see a reduction of approved passengers from the current 3,845 down to 2,882. This reduction in application approvals would translate into 963 less applicants approved per year.

These KFH Consulting firm numbers are only estimates so they will not be used to calculate cost savings for in-person interviews. The TTI estimate results in the lower cost avoidance numbers and so in an effort to conservatively estimate the value to Capital Metro this number will be the one used. It is important to point out that multiple consulting firms have suggested moving to in-person interviews and of the two mentioned in this section both point to substantial cost avoidance figures.

(2) Functional Assessments = $1.7 million savings in years one and two

Functional assessments allow transit agencies to obtain a much more precise determination about an individual's functional abilities as they relate to their ability to access and ride the regular fixed route bus system. Persons with disabilities may have a variety of abilities and simply determining that a person is 100% able or 100% unable to ride the fixed route bus does not apply to the vast majority of applicants. For this reason a functional assessment is vital for obtaining an accurate and individualized assessment of each applicant to determine in what situations s/he can or can not ride the fixed route bus. This is what is known as "conditional eligibility". For example, someone may have a

cognitive disability therefore limiting their ability to make multiple bus transfers and in that case they may not be eligible for trips where only one bus is used, but when multiple busses are required to make a trip the passenger is allowed to ride on paratransit. Other situations where conditional eligibility may be appropriate could be light sensitivity, night blindness, lack of sidewalks at a location for a wheelchair passenger, extreme cold or heat, and many other conditions.

Incorporating functional assessments into the eligibility process is important for determining under what conditions a passenger can ride the fixed route bus and under what conditions this is not possible. Only 192 of MetroAccess passengers coded as ADA3 are actively having their conditional eligibility enforced by the agency. This represents only 2.75% of the 6,976 currently active passengers (Turner, 2010). Other cities across the nation that are successfully utilizing a functional assessment as part of their eligibility process are seeing numbers much higher than Capital Metro's 2.75%. Pittsburgh enforces conditional eligibility with about 32% of their ridership while San Antonio has 31.5% and Seattle has around 28% of applicants receiving a determination of conditionally eligible (National Transit Institute, 2010).

Current Passengers and Functional Assessments

The two-year cycle of eligibility for current passengers means that it will take two years for Capital Metro to functionally assess all of their current passengers. Capital Metro assumes from the previous analysis that in-person interviews will remove 405 existing passengers per year from the service for the first two years, so for this analysis a total of 810 people will be subtracted from the 6,976 active passengers resulting in a working number of 6,166 active passengers who are anticipated to stay on the system. If

MetroAccess took a conservative estimate compared to the results from Pittsburgh, San Antonio, or Seattle, and assumed 25% of the 6,166 passengers should really be registered as conditionally eligible, this number would equate to 1,542 passengers. Subtract out the 192 passengers that are already conditionally eligible and this would result in a total of 1,350 additional passengers who would transition from full to conditional eligibility (Turner, 2010). The process of transitioning these passengers would be a two year period due to the two year cycle of eligibility recertification. This equates to 56.2 passengers being transitioned per month for two years.

Based on trip usage among the 192 conditionally eligible MetroAccess passengers, Capital Metro finds that conditionally eligible passengers on average take 75% less trips than fully eligible passengers take. This proportion results in a reduction of around 25 trips per passenger per year or 2.08 trips per month (Turner, 2010).

In month one of functional assessments, 56.2 passengers will be changed to conditional eligibility status. In month two an additional 56.2 passengers will become conditionally eligible for a total of 112.5 passengers in month two. This will continue for 24 months until all current passengers go through the recertification process. Month one cost avoidance equals 56.2 passengers multiplied by 2.08 trips and then multiplied by the average cost per trip of $31.62 for a total savings in month one of $3,704. In month two this number will double and in month three it will triple, and so on. This brings the cumulative savings for the first twelve months of functional assessments to $288,920. Continuing to recertify through this process from month twelve to month 24 Capital Metro may expect to see a cost avoidance of $822,309 in year two.

FUNCTIONAL ASSESSMENTS

(existing passengers)

	YEAR 1				YEAR 2		
	Pax chngd to CNDTNL	Trips saved per month	Monthly savings		Pax chngd to CNDTNL	Trips saved per month	Monthly savings
Month 1:	56.2	117.1	$3,704	*Month 13:*	731.0	1522.9	$48,153
Month 2:	112.5	234.3	$7,408	*Month 14:*	787.2	1640.0	$51,857
Month 3:	168.7	351.4	$11,112	*Month 15:*	843.4	1757.2	$55,561
Month 4:	224.9	468.6	$14,816	*Month 16:*	899.7	1874.3	$59,266
Month 5:	281.1	585.7	$18,520	*Month 17:*	955.9	1991.4	$62,970
Month 6:	337.4	702.9	$22,225	*Month 18:*	1012.1	2108.6	$66,674
Month 7:	393.6	820.0	$25,929	*Month 19:*	1068.4	2225.7	$70,378
Month 8:	449.8	937.2	$29,633	*Month 20:*	1124.6	2342.9	$74,082
Month 9:	506.1	1054.3	$33,337	*Month 21:*	1180.8	2460.0	$77,786
Month 10:	562.3	1171.4	$37,041	*Month 22:*	1237.0	2577.2	$81,490
Month 11:	618.5	1288.6	$40,745	*Month 23:*	1293.3	2694.3	$85,194
Month 12:	674.8	1405.7	$44,449	*Month 24:*	1349.5	2811.5	$88,898
	Year 1 Savings:	**$288,920**			**Year 2 Savings:**	**$822,309**	

Table 6: Functional Assessments (Existing Passengers)

New Passengers and Functional Assessments

The previous analysis focused on existing passengers only, but the 25% conditionally eligible applies to new applicants as well. Assuming that in-person assessments will reduce the number of total applications by 810 per year then the expected number of applications received will be reduced from 4,500 to 3,690. The percent of approved applications is 85.4% and applied to this revised number of total applications the new number of approved applications would be 3,153. Of these approvals only half are new applicants, so 1,576 new passenger approvals are estimated to occur in the first twelve months. 25% of these new passengers would be approved as conditionally eligible for a total of 394 per year or 32.8 per month.

Month one cost avoidance equals 32.8 newly certified passengers multiplied by the average number of 2.08 trips per month and then multiplied by the average cost per trip of $31.62 for a total cost avoidance in month one of $2,164. In month two this number will double and in month three it will triple until the month twelve savings reach $25,963. This brings the total cumulative savings related to new applicants for the first twelve months of functional assessments to $168,759. Continuing to functionally assess from month twelve to month twenty-four Capital Metro may expect to see a cost avoidance of $480,315 in year two.

FUNCTIONAL ASSESSMENTS

(new passengers)

	YEAR 1				YEAR 2		
	Pax apprvd as CNDTNL	Trips saved per month	Monthly savings		Pax apprvd as CNDTNL	Trips saved per month	Monthly savings
Month 1:	32.8	68.4	$2,164	*Month 13:*	427.0	889.5	$28,127
Month 2:	65.7	136.8	$4,327	*Month 14:*	459.8	957.9	$30,290
Month 3:	98.5	205.3	$6,491	*Month 15:*	492.7	1026.4	$32,454
Month 4:	131.4	273.7	$8,654	*Month 16:*	525.5	1094.8	$34,617
Month 5:	164.2	342.1	$10,818	*Month 17:*	558.3	1163.2	$36,781
Month 6:	197.1	410.5	$12,981	*Month 18:*	591.2	1231.6	$38,944
Month 7:	229.9	479.0	$15,145	*Month 19:*	624.0	1300.1	$41,108
Month 8:	262.8	547.4	$17,309	*Month 20:*	656.9	1368.5	$43,272
Month 9:	295.6	615.8	$19,472	*Month 21:*	689.7	1436.9	$45,435
Month 10:	328.4	684.2	$21,636	*Month 22:*	722.6	1505.3	$47,599
Month 11:	361.3	752.7	$23,799	*Month 23:*	755.4	1573.8	$49,762
Month 12:	394.1	821.1	$25,963	*Month 24:*	788.3	1642.2	$51,926
	Year 1 Savings:	**$168,759**			**Year 2 Savings:**	**$480,315**	

Table 7: Functional Assessments (New Passengers)

(3) Other cost savings = Various

The reduction of trips resulting from the implementation of both in-person interviews and functional assessments is projected to be more than 59,000 passenger trips

in the first year. Reducing trip demand on the system by this amount will likely save additional resources not calculated here. The reduction in trip volume could save additional resources by potentially delaying the need to expand administrative and operational facilities, extending the life of the current fleet by accumulating fewer miles per year, reducing the urgency to acquire additional vehicles, avoiding immediate increases in call center staff, and perhaps other less obvious efficiencies. Since these are not firm numbers they will not be included in the calculation of direct savings, but they should be considered when choosing whether or not to move forward with these policy changes.

TOTAL COSTS

(1) In-person Interview costs: $114,000 - $400,000

Eligibility department staff members must be hired to provide in-person interviews, passenger orientation, travel training, letter processing, and customer inquiry processing. The number of staff needed would vary greatly depending on what services are contracted out versus kept in house, but an estimated six staff members should be adequate even if most of the work must be done in-house. Depending on position requirements, the salary plus benefits are estimated by Capital Metro staff to range from $38,000 to just over $83,000 for these additional positions (Evans, 2010).

(2) Functional Assessment fees

Functional assessment fees can vary greatly depending on how the program is structured, who administers it, and what requirements are included in the scope of the

contract. Capital Metro estimates between $30 and $100 per application. These costs would be closer to the high end of the range if the in-person interviews are added into the contract for the functional assessments. Assuming there is no drop in applicants from the FY2009 number of 4,500 and that everyone receives a functional assessment, the costs would be between $135,000 for the $30 fee and $450,000 for the $100 fee.

The anticipated number of functional assessments needed is well below all 4,500 applicants, but this number is still being used as a conservative worst-case scenario.

(3) Facility Costs:

Facility cost for assessments would be a $0 budget impact because Capital Metro plans to use existing space within Capital Metro's facility at 624 Pleasant Valley, Austin, TX 78702.

Facility renovation costs have been roughly estimated by Capital Metro staff to be around $40,000. The facility already has many parts and components of a fixed route bus and so there will be minimal work required to setup a functional assessment course due to the facility's proximity to fixed route bus service. Computers, desks, minimal space modification, and video monitors would be the major expenses for this renovation.

YEAR ONE Total estimated value in year 1:			
	Est. need	Unit cost	Total
Eligibility Coordinator ($59,298 x 1.4)	*1*	*$83,017*	*$83,017*
Eligibility Specialist ($31,571 x 1.4)	*1.0*	*$44,199*	*$44,199*
Support Specialist II ($27,504 x 1.4)	*2.0*	*$38,506*	*$77,011*
2 Travel Trainers ($50,000 x 1.4)	*2.0*	*$70,000*	*$140,000*
Facility Remodel & equipment	*1*	*$40,000*	*$40,000*
Est. setup and personnel Cost:			**<$384,228>**
Est. 3rd Party Contractor cost			**<$300,000>**
Est. in-person interview savings in year 1			*$1,413,409*
Est. functional assessment savings in year 1			*$457,679*
Est. year 1 savings:			**$1,871,088**
Dept setup and personnel cost:			<$384,228>
Estimated 3rd Party Contractor cost:			<$300,000>
Estimated year 1 savings:			$1,871,088
Total estimated value in year 1:			**$1,186,860**

Table 8: Total Estimated Value in Year One

YEAR TWO Total estimated value in year 2:			
	Est. need	Unit cost	Total
Eligibility Coordinator ($59,298 x 1.4)	*1*	*$83,017*	*$83,017*
Eligibility Specialist ($31,571 x 1.4)	*1.0*	*$44,199*	*$44,199*
Support Specialist II ($27,504 x 1.4)	*2.0*	*$38,506*	*$77,011*
2 Travel Trainers ($50,000 x 1.4)	*2.0*	*$70,000*	*$140,000*
Est. setup and personnel Cost:			**<$344,227>**
Est. 3rd Party Contractor cost			**<$300,000>**
Est. in-person interview savings in year 2			*$4,022,780*
Est. functional assessment savings in year 2			*$1,302,624*
Est. year 2 savings:			**$5,325,404**
Dept personnel cost:			<$344,228>
Estimated 3rd Party Contractor cost:			<$300,000>
Estimated year 2 savings:			$5,325,405
Total estimated value in year 2:			**$4,681,177**

Table 9: Total Estimated Value in Year Two

Savings based on the implementation of policies establishing in-person assessments and functional evaluations are significant. The total estimated value to Capital Metro in year one would be $1.186 million. Year two would be an increased value to Capital Metro due to the two year cycle of eligibility with savings of $5.325 million minus the personnel costs of $344,228 for a total savings in year two of $4.681 million. These savings to Capital Metro would take the agency far in their attempt to reach the 10% cost savings goal set by the Sunset Advisory Commission.

Chapter 5: Taxi Voucher on Request Policy

TAXI VOUCHER POLICY ON REQUEST POLICY EXPLANATION

MetroAccess passengers have an option to request that certain trips be provided by a taxi company of their choosing. These trips are limited to return trips from the following: medical appointments, jury duty, returning from out-of-town travel, grocery shopping, appointments related to care of service animals, rehabilitation, therapy, and court appointments (Capital Metro, 2002). Passengers must contact the reservations call center and schedule a voucher in the same way they schedule any other MetroAccess trip. The difference is that a standard trip on a MetroAccess vehicle has a very strict 30-minute timeframe whereas a taxi voucher can be used at any time during the day for which it was authorized.

Capital Metro is billed by the taxi company a portion of the taxi fare up to 6.1 miles with a maximum of $16.50 per trip for fiscal year 2010. Passengers are expected to pay one paratransit trip ticket valued at $1.20 in addition to any fare amount above and beyond the 6.1 miles paid for by Capital Metro. Therefore trips that are less than six miles only cost the passenger one paratransit ticket with a value of $1.20 (Turner, 2010).

The voucher program reaches far beyond what is required by the American's with Disabilities Act, and provides a disparate level of service between Capital Metro's fixed route riders and those paratransit riders who partake in this service. Voucher on request service is similar in trip duration and comfort to that of a personal vehicle. Capital Metro

should reconsider if this level of service is appropriate for a public transit agency to provide.

TAXI VOUCHER ANALYSIS

MetroAccess calculates that the voucher on request program cost $2,227,500 in FY2009, with a total trip count around 135,000 per year. The amount Capital Metro pays a taxi company averages approximately $16.50 per trip. This policy allows for a high level of flexibility for the MetroAccess passengers but it creates additional cost for Capital Metro.

The flexibility of taxi service is very attractive to passengers who otherwise would need to request all trips at least one day in advance. When passengers are provided with a taxi voucher they can decide when they want to take their trip, and if they decide they do not want to go that day they simply do not use the voucher. Unlike a normal MetroAccess trip where a passenger would be assessed a no-show penalty for not cancelling a trip, passengers with vouchers do not suffer any penalty if they do not cancel their voucher. There is no additional cost for a taxi voucher on request, and from the passenger's perspective it is far more convenient than taking a trip on a MetroAccess vehicle. For these reasons it is not surprising that vouchers on demand account for around 135,000 of the total estimated 698,000 annual MetroAccess passenger trips, nearly 20% of the annual trips (Turner, 2010).

The Texas Transportation Institute notes that the cost per taxi voucher is lower than the cost of providing service on a paratransit vehicle, but they caution Capital Metro from comparing these services directly. TTI states that the low cost and increased

convenience of the taxi voucher on request program may result in an increase of passenger voucher use. This increase in utilization of taxi vouchers may result in much greater costs to Capital Metro (Texas Transportation Institute, October 2007)

Vouchers on Request, a Benefit for Few

An analysis to review the voucher on request utilization by MetroAccess passengers shows that the program is used heavily by a small portion of the ridership. Only 40 of the nearly 7,000 registered MetroAccess passengers account for 27.5% of all vouchers on request. The analysis used all days in March and April of 2010. March and April 2010 were one Saturday and one Sunday short of having nine full weeks. During these two months only 1,121 of the nearly 7,000 MetroAccess passengers used the voucher on request service at all. These 1,121 passengers used 17,296 vouchers during the 61-day period (Turner, 2010). Assuming that an average person might need one flexible trip per week for trip purposes like the grocery store or a doctor appointment, a reasonable amount of vouchers for a two-month period might be around nine or fewer trips for this particular time period. Using this once per week assumption for the voucher analysis, Capital Metro staff found that 761 passengers use the voucher on request service once per week or less (nine or less times), while only 360 passengers use the service more than nine times during these months. These 360 passengers represent only 5.1% of the 6,976 active passengers registered for the MetroAccess program, but they consume 85.3% of the voucher on request program. The top 40 users of the voucher on request service used on average 119 vouchers during the two months, with the top user reaching an astonishing total of 245 vouchers on request (Turner, 2010).

The ease of use and low passenger cost of the Capital Metro voucher program results in large expenses for the authority and also opens the door for passengers to abuse the voucher program. It is common to have passengers schedule multiple trips to and from multiple grocery stores five days a week but instead of going to the grocery store many passengers are actually going to other locations nearby. This is commonly done by passengers to avoid taking their trips on a MetroAccess vehicle. Eliminating fraud from the current program is nearly impossible, and in order to significantly reduce the potential for fraud MetroAccess would need to dedicate employees to routinely follow up on passenger voucher use (KFH, 2006)

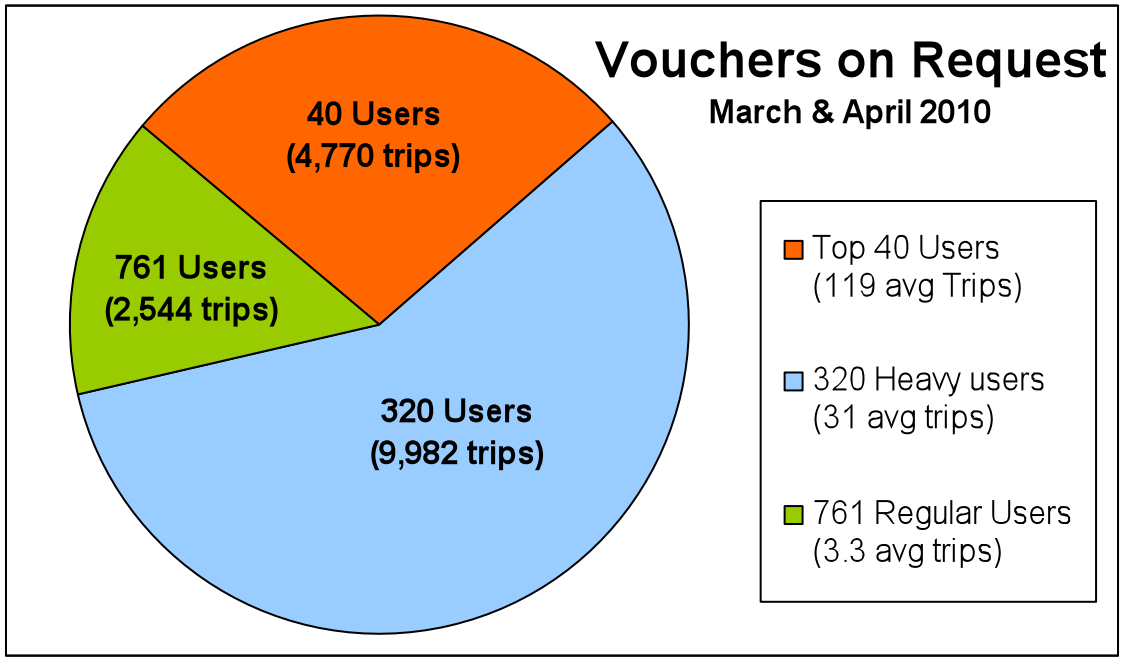

Figure 7: Vouchers on Request March and April 2010

Availability of Taxi Service

Availability of wheelchair accessible taxi vehicles is a large issue for persons with disabilities in the greater Austin community. The problem is so large that it could render the voucher program to be in violation of the Americans with Disabilities Act. Wheelchair accessible taxies are so rare in Austin that most wheelchair dependent passengers do not participate in the voucher on request program. Capital Metro contracts with Yellow Cab and Austin Cab to provide this service. Between these two contractors they have a combined total of 581 non-wheelchair accessible taxis and only 33 taxis that are able to transport a passenger in a wheelchair. This means that 5.4% of the taxis under contract for MetroAccess are wheelchair accessible, but 27% of current MetroAccess passengers use a mobility aid that would require the use of a wheelchair accessible vehicle (Evans, 2010). As a result this reflects a pattern and a practice by Capital Metro in the administration of the taxi voucher program of disproportionately excluding passengers whose disabilities require the use of a wheelchair. Reducing transportation options disproportionately to one specific group of persons with disabilities is not legal and could result in legal action and fines from the Federal Transportation Administration. Even though this program is not required under the ADA it is still obligated to provide equal access to everyone. The program as it stands falls short of this requirement.

Availability of accessible taxi vehicles is not the only shortcoming of the taxi voucher program. MetroAccess provides taxi vouchers upon request to passengers who meet the qualification of trip purpose, however Capital Metro is not able to guarantee the availability of a taxi at the time a passenger is ready to receive their ride. The taxi companies in Austin hire independent owner operators to provide taxi service, and are therefore not structured in a way that would allow the companies to require taxi drivers to

provide any specific trips (Evans, 2010). This is a problem at times of heavy taxi use, such as in the evenings, on weekends, or when large events are taking place in Austin. Passengers are likely to find themselves stranded at these times. Capital Metro's reliance on taxies to provide more than 170,000 trips per year only adds to this availability constraint. Capital Metro authorized in FY2009 an average of 627 taxi trips per day to provide their ADA paratransit service. If passengers are unable to get a taxi, due to lack of availability, then Capital Metro is legally obligated to provide the trip (Turner, 2010). Significant risk is assumed each day by promising a large volume of passenger trips through a third party which Capital Metro is unable to control.

Peer Cities

The Capital Area Metropolitan Planning Organization sponsored a performance audit in 2008 with the purpose of comparing Capital Metro's operations to those of other cities around the nation with similar characteristics. Capital Metro's nine peer cities are identified as Tampa, Charlotte, Louisville, Kansas City, Memphis, Indianapolis, Columbus, Sacramento, and Orlando (Cambridge Systematics Inc, 2008). Capital Metro continues to use these cities as a reference point when looking at new and existing policies.

These nine cities were surveyed by Capital Metro staff in January 2010 to determine if they offered a comparable non-ADA mandated service similar to the MetroAccess voucher on request program. Indianapolis and Columbus were the only two cities with a client request taxi program. Both cities sell a specific number of vouchers per month on a first come first serve basis and once they are gone no more are sold. Columbus suspended their taxi program in June 2010 leaving Indianapolis with the only

remaining taxi program among Capital Metro's peers (Turner, 2010). The Indianapolis taxi program is still operating and authorizes only 680 vouchers per month for their entire ridership, so the scope of the Indianapolis program is nowhere as large as the Capital Metro voucher on request program. Indianapolis recovers $3.50 in fares per voucher whereas Capital Metro recovers only the standard fare of $1.20 per voucher (Turner, 2010). It is clear that Capital Metro not only goes far beyond what is mandated under the ADA, but is also out of sync with the paratransit offerings of the peer cities.

TAXI POLICY RECOMMENDATION

The taxi voucher on demand program should be discontinued immediately until taxi companies increase the number of wheelchair accessible vehicles to a level that would allow Capital Metro to ensure compliance with the ADA. The taxi voucher on demand program should also be closely reviewed by the Capital Metro Board of Directors to determine if this program, as it is structured now, is an appropriate service for a transit agency to provide. If the Board decides to keep the program then it should be overhauled and not re-implemented until the taxi companies have adjusted their fleet composition to meet the needs of ambulatory and wheelchair passengers equally and at all times of the day. The overhaul should include limiting the availability and also charging a premium price.

Capital Metro will need to establish a set number of vouchers per month to make available and then offer them at a premium price until they are sold out. Limits on quantities per passenger and maximum trip length should also be established. The model

Capital Metro should follow is the Indianapolis taxi voucher program since this is the only peer city that offers this type of service.

This new voucher program would benefit passengers because they would have more flexibility to use the taxis for any reason on any day and at any time whereas the current program is only available for specific trip purposes. Capital Metro would benefit by no longer needing to audit taxi billing, having the ability to know exactly how much to budget for vouchers each year, and removing the need to have call center staff schedule each voucher.

ANTICIPATED EFFICIENCIES OF REVISED TAXI POLICY

The current system makes it difficult to project costs and places control of the program cost into the hands of the passengers each time they decide whether or not to use a voucher. Placing a limit of 3,000 voucher trips per month will allow Capital Metro to easily budget for 36,000 voucher trips per year assuming the vouchers sell out each month. The largest fluctuation in projecting taxi voucher budgets would then only be the per trip amount billed to Capital Metro. This per trip cost for fiscal year 2010 is a maximum of $16.50 for a six-mile or longer trip. Assuming that trip length is no longer restricted for these vouchers Capital Metro staff estimates the cost per voucher with no trip length restriction would increase to a high estimate of $25 per trip (Turner, 2010). For example 36,000 trips multiplied by a cost of $25 per trip would place the cost to Capital Metro of these vouchers at $900,000 per year.

The Federal Transit Administration allows Capital Metro to charge a premium fare for these kinds of services because they extend beyond what is required under the

Americans with Disabilities Act (Evans, 2010). Setting a $5 fare per trip on the voucher service would allow Capital Metro to recover $180,000 in fare revenue to offset the cost. The $900,000 cost of the program reduced by the $180,000 recovered in fares would bring the total cost of the program to $720,000. The current cost of the voucher on request program is $2,227,500, so a change to this type of service could net up to $1,507,500 in annual savings.

Chapter 6: Open Return Policy

OPEN RETURN POLICY EXPLANATION

Open returns trips are identified as trips when a passenger has a difficult time providing an estimated time for pickup (Capital Metro, 2002). The passenger will call the reservations call center and schedule the trip but they are not required to give an estimated time when they will be ready to be picked up. Return trips from medical appointments, jury duty, and travel (such as airports and bus stations) are recognized by Capital Metro as qualifying for open return service. The trip purposes are similar in concept to the voucher on demand service, but in this case the trips are provided by a MetroAccess vehicle.

Once the passenger is ready to leave the location from which they booked an open return, the passenger must call MetroAccess to activate the ride. At this point a dispatcher will place a time on the reservation and try to schedule the trip to a vehicle as soon as possible. Passengers are notified that they may have to wait for up to an hour or more for the vehicle to arrive (Capital Metro, 2002).

OPEN RETURN POLICY ANALYSIS

Passengers may call at any time during the day to have their open return trips activated and scheduled. At this point a dispatcher has up to an hour to find a route to schedule the ride on. MetroAccess performed 11,489 open return trips in FY2009. In an

analysis done by MetroAccess staff it was determined that 93.3% of open return trips are for medical related trips, 4.6% of trips are return from travel, and the remaining 2.1% of trips account for all other miscellaneous trip purposes (Turner, 2010).

Negative operational impact of the open return policy can be seen in three ways at MetroAccess. Revenue service hours are held back, overtime hours increase, and dispatchers must divert from their regular tasks to process open returns.

MetroAccess schedulers leave 64 total hours of the drivers' runs open per week to accommodate open returns (Turner, 2010). This means that instead of scheduling passengers onto these various runs the schedulers keep these hours open with the assumption that passengers will call to activate their open return trip. In theory this allows for MetroAccess to have drivers available to pick these passengers up when they are ready. MetroAccess has no guarantee of what time during the day a passenger will call and dispatchers do not know what part of town the next passenger will call from. With so many unknown factors it is difficult to efficiently coordinate the utilization of these expensive resources. On an annual basis this accounts for 3,328 hours per year that are held back for this inefficient service. Holding back 3,328 hours costs the agency $20.90 per hour, for a total cost of $69,555 per year.

Overtime hours have also been attributed to providing open return service. Capital Metro estimates 765 hours of overtime per year are accumulated for this service alone (Turner, 2010). Overtime occurs for many reasons, most commonly when dispatch must keep a driver with a wheelchair accessible vehicle past their shift end time to wait until a passenger in a wheelchair is ready to activate their open return. Knowing a scheduled pickup time in advance allows dispatchers to re-adjust resources ahead of time (Texas Transportation Institute, October 2007). The cost of overtime is high for MetroAccess because of the union contract. The overtime hours must be offered to the most senior

drivers first and therefore is most often awarded to them at their high hourly rate of $20.90, times 1.5 for overtime. This makes the cost of overtime $31.35 per hour. With 765 annual overtime hours linked to providing open returns MetroAccess spends $23,983 every twelve months (Turner, 2010).

Open returns are time consuming for MetroAccess staff to process. Each one must be handled six times by staff. First a reservation agent will take the call and reserve the trip. The scheduler will then look at the open return to try and guess what part of the day to hold back resources. On the day of service a member of the call center staff will take the call from the passenger to activate the open return. The dispatcher will then get the trip on their computer and he or she must schedule the trip as quickly as possible. The dispatcher must notify the driver of the schedule change and respond to any questions from the driver. The final step is for the dispatcher to make phone contact with the passenger to let them know of their new scheduled time. Capital Metro estimates an additional three minutes of staff time is consumed for each open return processed (Evans, 2010). Providing 920 open returns a month results in an annual increase of staff time totaling 552 hours. The hourly cost of these union employees is an average of $22.50 per hour with a total cost of $12,420 per year (Turner, 2010).

The total cost of providing open return service totals $105,958. MetroAccess provides 920 open returns a month for a total of 11,040 per year. The cost to Capital Metro for each open return is an additional $9.60 premium on top of the already high cost of an average paratransit trip, but no additional fare is charged to the passenger for this premium service.

OPEN RETURN POLICY RECOMMENDATION

The Open Return policy recommendation is to eliminate Open Returns and require passengers to schedule return trips with a specific time. It is recommended to put in place a process that will ensure passengers will receive a ride home in the event that they miss their return ride due to circumstances beyond their control. This will provide passengers with reassurance that they will not be stranded but allows Capital Metro the ability to construct schedules in advance by eliminating the need to guess when their demand will be greatest.

ANTICIPATED EFFICIENCIES OF ELIMINATING OPEN RETURNS

Leaving revenue passenger service unscheduled will no longer be required because all trips will be scheduled before the day of service begins. This allows scheduling to more efficiently utilize the service that MetroAccess already has available and allows them to more accurately forecast service demand. Driver overtime will be much easier to control when all trips are scheduled and future demand can be accurately forecasted. Eliminating the Open Return policy also allows for better customer service.

Inserting open return trips into a driver's schedule can often cause other riders to run late or lengthen the time they must stay on board the vehicle in order to accommodate the Open Return passenger. Eliminating open returns will remove this duty from dispatchers and allow them to work on maximizing schedule efficiency rather than answering calls. Eliminating an average of 920 open returns eliminates 920 calls per

month to the call center for activating open returns, and an additional 920 calls between dispatch and the customer.

The total costs of providing open return service includes $69,555 for service being held back, $23,983 for overtime hours, and $12,420 for staff time. Therefore the grand total in savings resulting from an elimination of the policy would equal $105,958 per year.

Chapter 7: Three-Quarter Mile Service Area Policy

SERVICE AREA POLICY EXPLANATION

MetroAccess currently operates at the federally mandated three-quarter mile distance surrounding fixed route bus operations (ADA CFR 49, 2009). This corridor does not include express bus service, flex routes, and commuter rail lines; as this is not a requirement of the Americans with Disabilities Act (ADA). The service area also expands and contracts based on the day of the week and the time of the day. Figure 9

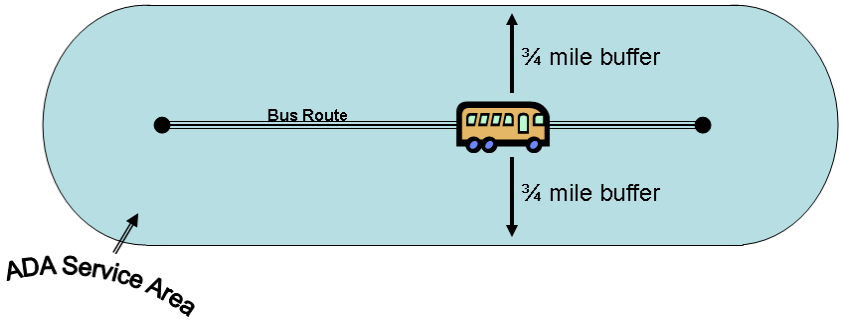

Figure 8: Service Area – ADA three-quarter mile buffer

shows the two extremes of the service area with the smallest area being the "Nightowl" service area in the middle of the night and the largest area being the weekday service when all routes are running (Texas Transportation Institute, May 2009).

Capital Metro allows exceptions for passengers who once were but are no longer within the three-quarter mile zone. These passengers are referred to as “grandfathered passengers”. When the regular fixed route bus path changes for any reason the corresponding three-quarter mile paratransit ADA service area will change as well (ADA CFR 49, 2009). Just like fixed route passengers that lose their bus service during a reduction of service the ADA expects neighboring paratransit passengers to lose service as well. This is one of the ways that paratransit is a comparable service to fixed route.

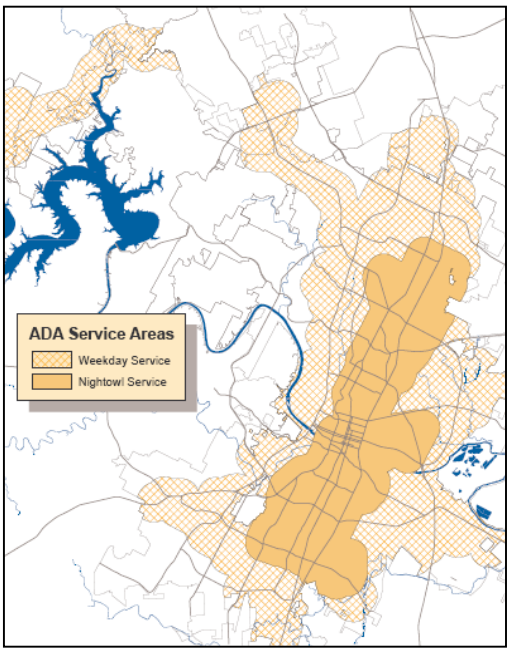

Figure 9: Capital Metro Service Area – Weekday and “Nightowl” services

MetroAccess provides additional service for 395 passengers outside of the ADA service area because they were “grandfathered” onto the service. An additional 859 passengers have already been transitioned off of the service through the years (Turner, 2010). Due to the discrepancy of service outside of the paratransit ADA service area the

Capital Metro Board of Directors will be revisiting the definition of this service area before the end of 2010. Providing service to some passengers but not others is not an equitable practice, and if Capital Metro continues to grandfather the 395 passengers onto the service then they must also consider including the 859 passengers that had previously been transitioned off of the service in years past. Providing service to some passengers outside of the service area but not others could potentially open Capital Metro up to lawsuits with claims of discrimination.

SERVICE AREA POLICY OPTIONS

The paratransit service area is mandated by the ADA for all medium to large transit agencies to be a minimum of a three-quarter mile from regular fixed route services (ADA CFR 49, 2009). Transit agencies can go beyond this requirement and define an area up to the size of the entire transit corridor, but due to the cost of providing paratransit service this option is too cost prohibitive for many agencies.

The three policy options are outlined below:

Option 1: ADA ¾ mile of local fixed route *(minimum ADA requirement).*

This option would involve eliminating the 395 currently grandfathered passengers from the system and discontinuing the practice of "grandfathering" passengers in the future who may lose service due to a fixed route bus service realignment.

Option 2: ADA ¾ mile of local fixed route + 1,254 Grandfathered Clients

This option would involve adding the 859 passengers that were previously transitioned off of the service to the 395 "grandfathered" passengers for a total of 1,265 passengers living outside of the ¾ mile ADA corridor.

Option 3: Entire Service Area

This is the most expansive service area possible. This option provides service to anyone with a qualifying disability anywhere in the Capital Metro taxation zone.

SERVICE AREA POLICY ANALYSIS

A cost avoidance comparison for FY2010 and FY2015 was made for each of the three service options. This is analyzed as cost avoidance because the analysis rests on future utilization rates that Capital Metro may experience with changing the area rather than cost savings that would take place beginning on day one of the policy. The cost savings will be addressed directly addressed in the "Service Area Policy Anticipated Efficiencies" section of this chapter.

Tools used in the analysis of comparing true costs and utilization rates for each of the three service area options came from Capital Metro, the Census, and TTI.

Registered MetroAccess passengers live within the Capital Metro service area and beyond including: Austin, Leander, Manor, Jonestown, and San Leanna, Sunset Valley, Cedar Park, Rollingwood, and Westlake Hills. (Turner, 2010). Population numbers and disability ratios listed out by each of these cities was obtained from the U.S. Census Bureau's 2000 Census. This data is the most current provided by the Census Bureau where each city is listed out with information broken out by percent of population with a disability. This information was compiled by the Texas Transportation Institute (TTI) and the estimated percentage of the population with a disability in cities with MetroAccess passengers is 14.4% (Texas Transportation Institute, May 2009).

The disability community's utilization rate of 6.68% is derived from the percentage of total population with a disability (14.4% of the total population) residing inside the current Capital Metro three-quarter mile service area divided into the number of active MetroAccess passengers living within this area (Turner, 2010). This means that they estimate only 6.68% of all people in the Capital Metro service area who are living with a disability are registered to use the MetroAccess service.

The methodology of the analysis begins with projecting the population of the three-quarter mile ADA area and the entire Capital Metro taxation zone. This data was provided by the Capital Metro Planning Department and was derived by using the Census Bureau's Traffic Analysis Zone population estimates and then applying the American Community Survey population growth estimates from the Census Bureau through a geographic information system (GIS) mapping process (Sutherland, 2010).

	Options 1 & 2 *3/4 mile corridor*	**Option 3** *Entire CAPITAL METRO Service Area*
Total estimated Population (ACS 2007)	664,029	846,666
ACS 10-year Growth Rate (2007-2017)	10.36%	18.90%
Growth Rate per year	0.9911%	1.7465%
Estimated Pop 2010	683,969	891,807
Estimated Pop 2015	718,541	972,454

Table 10: Population Comparison of Three Service Options

Analysis of the three service area options for fiscal year 2010, as seen in table 9, indicates that option one is the lowest cost option at $21.194 million for year one. Option two is projected to cost an additional $4.039 million more than option one, and option three is projected to cost $6.440 million more than option one. The cost implications of this choice have a significant and immediate impact on the Capital Metro budget.

FY2010	Option 1 ADA 3/4 mile	Option 2 Option 1 + 1254 Grandfathered	Option 3 Entire Service Area
Population of proposed area	683,969	683,969	891,807
14.4% with a disability	98,492	98,492	128,420
Active Passengers (6.68% Utilization Rate)	6,579	7,833	8,578
Projected Trips (101.88/passenger)	670,292	798,050	873,975
Direct cost per trip	$31.62	$31.62	$31.62
Total Expenditures	**$21,194,646**	**$25,234,339**	**$27,635,074**
Cost above Option 1	*N/A*	*$4,039,693*	*$6,440,428*

FY2015	Option 1 ADA 3/4 mile	Option 2 Option 1 + 1254 Grandfathered	Option 3 Entire Service Area
Population of proposed area	718,541	718,541	972,454
14.4% with a disability	103,470	103,470	140,033
Active Passengers (6.68% Utilization Rate)	6,912	8,166	9,354
Projected Trips (101.88/passenger)	704,173	831,931	953,009
Direct cost per trip (annual increase of 3.95%)	$38.38	$38.38	$38.38
Total Expenditures	**$27,024,880**	**$31,927,981**	**$36,574,744**
Cost above Option 1	*N/A*	*$4,903,101*	*$9,549,863*

Table 11: Cost and Population Comparison of Three Service Options FY2010 and FY2015

The fiscal year 2015 service area analysis suggests that these additional costs will remain burdensome well into the future. Option two is projected to cost $4.903 million additional while option three is anticipated to cost an additional $9.549 million more than the option one cost of $27.024 million in FY2015.

Costing estimates for this analysis consider the increase in demand for MetroAccess service based on population increase using only the "direct cost" pricing structure. The direct cost calculates the cost of driver payroll, fuel, maintenance, and other costs associated with day-to-day operations. Direct cost does not include the administrative staff, technology hardware, software, capital for new vehicles or additional buildings, and service planning.

Expansion options could cost Capital Metro much more money than has been outlined in this analysis. Additional vehicles would be required, an additional satellite facility would be needed, and more administrative staff would be necessary. These costs are not included in this analysis.

SERVICE AREA POLICY RECOMMENDATION

The service area policy recommendation is to maintain a strict ADA-mandated service area of a three-quarter mile distance from qualifying standard fixed route Capital Metro bus service and remove service from the "grandfathered" passengers.

SERVICE AREA POLICY ANTICIPATED EFFICIENCIES

The service area recommendation of maintaining strict ADA requirements and removing grandfathered passengers results in cost savings related directly to the trips saved by no longer providing service to the grandfathered passengers.

Capital Metro staff found that between June 2009 and June 2010 these non-ADA passengers took a total of 20,570 trips. The Capital Metro Internal Audit department estimates that the average trip length for all MetroAccess trips is 29.65 minutes long, but an analysis of these non-ADA trips finds that they are on average 47.03 minutes long (Turner, 2010). The longer trips cost more for Capital Metro to provide. Considering a 29.65 minute trip costs $31.62, a 47.03 minute trip would cost the agency $50.20. This is the weighted cost of providing these longer non-ADA trips, and so multiplying this cost times the number of trips taken by these passengers in a year (20,570) would show the potential cost savings of this policy change. In twelve months Capital Metro could save $1,032,614 or roughly $86,051 per month.

Chapter 8: Service Level: Door-Through-Door Policy

SERVICE LEVEL: DOOR-THROUGH-DOOR POLICY EXPLANATION

MetroAccess currently provides Door-through-Door service on all paratransit trips. Door-through-Door service is defined in the MetroAccess Policy and Procedure Guide as:

> "Door-through-door transportation service provides [MetroAccess] passengers with operator assistance from the exit door of the passenger's origin to the [MetroAccess] vehicle. It also provides passengers with assistance from the vehicle to the entrance door (over the threshold) of the passenger's final destination" (Capital Metro, 2002).

MetroAccess provides a much higher level of service than that required by the ADA. Section 37.129 states that "The local planning process should decide whether, or in what circumstances, this service is to be provided as door-to-door or curb-to-curb service" (ADA CFR 49, 2009). Capital Metro's door-through-door policy is similar to the door-to-door service level mentioned in the ADA, but there is a distinction that makes these two service levels different. The Capital Metro policy of door-through-door requires the vehicle operators to go into all non-residential buildings to assist passengers, whereas the door-to-door designation requires the vehicle operators to go up to a door but never past the threshold. Capital Metro's service level goes well beyond what is required by the ADA.

SERVICE LEVEL: DOOR-THROUGH-DOOR POLICY ANALYSIS

Additional time is required to provide assistance to every passenger from the vehicle through the door. Many passengers may not need that level of service and providing it to everyone creates unnecessary waste of service. Providing curb-to-curb service on passenger trips that are currently receiving door-through-door service could save an estimated two minutes of dwell time on at least one end of each trip (Evans, 2010). If 50% of passenger trips could be switched to curb-to-curb service this could translate into a significant amount of recovered revenue time. The budgeted number of trips for FY2010 for MetroAccess is 698,389. Assuming that half of these trips could be completed at a curb-to-curb service level this would mean that there is a potential to recover two minutes from 349,194 trips. 698,389 minutes translates into 11,639 hours, and at an average of two passengers an hour Capital Metro might be able to recover 23,330 additional trips (Turner, 2010). The theory is that these trips could be provided almost completely with resources that are already being used.

Door-through-door service not only reduces efficiency but it also poses several problems for MetroAccess operations. Door-through-door service exposes Capital Metro to additional risk of providing service whereas curb-to-curb service minimizes that risk. Requiring drivers to escort passengers from the vehicle through the door of the destination requires them to leave their vehicle, leave other passengers unattended, increase dwell time in locations where the vehicle is in the flow of traffic, increase the chance of a workers comp accident, and increase the chance that a passenger accident may happen while escorting passengers through many differing environments.

Capital Metro's internal Risk Management department provided a "Door to Door Injury Report" to MetroAccess management in June 2010. This report studies all injury accidents occurring between October 2008 and April 2010 to determine how many of these accidents are related to a MetroAccess driver providing some level of door-through-

door service. During this timeframe the Risk Department was able to attribute sixteen injury accidents to providing door-through-door service, and the costs associated to these injury accidents total $230,177. The average monthly cost Capital Metro pays stands at $12,114 based on this number. The Risk department warns that these costs are not final and as more treatment for ongoing conditions is sought these attributable costs will increase further (Nyren, 2010).

SERVICE LEVEL: DOOR-THROUGH-DOOR POLICY RECOMMENDATION

The recommendation for this policy is to provide curb-to-curb service to all passengers by default. Passengers who need additional assistance may be approved in the eligibility process to receive door-*to*-door service. Door-*through*-door service should be completely discontinued at MetroAccess.

ANTICIPATED EFFICIENCIES OF CURB-TO-CURB SERVICE LEVEL

Increased service capacity of 46,660 trips per year is anticipated with the implementation of this recommendation. Providing curb-to-curb service on passenger trips that are currently receiving door-through-door service will save an estimated two minutes of dwell time at both ends of each trip. If 50% of passenger trips could switch to curb-to-curb service this could translate into more than 23,330 additional trips that could be provided annually with the same amount of resources. The cost of adding 23,330 trips to the current MetroAccess program at the directly operated cost of $31.62 would incur an additional cost of $737,694. Therefore this change in service would provide an

increase in efficiency to allow MetroAccess to expand their capacity by 23,330 trips with minimal additional cost. The only cost increase would be fuel costs but with an estimated $4 additional per trip cost to account for fuel the cost would only be $93,320. Subtracting the fuel costs from the amount saved by recovering the additional service would still allow Capital Metro to realize a cost savings of $644,374.

Liability savings are also anticipated with this policy change. Sixteen injury accidents are attributed to providing door-through-door service, and the costs associated to these injury accidents total $230,177 (Nyren, 2010). If half of MetroAccess passengers are provided with curb-to-curb service, while the other half are reduced from door-through-door service to door-to-door service, then additional liability savings could be reasonably expected. Door-through-door service is the most labor intensive part of a vehicle operator's job. If this task is reduced by half then one could reasonably expect that the current $230,177 annual costs associated with injury accidents could reduce by $115,088 or more. The total cost savings by combining gains in efficiencies and the reduction in liability costs for Capital Metro would be worth a total $759,462 in value to the agency.

Chapter 9: Conclusion

The Sunset Advisory Commission released findings from an audit in 2010 which concluded, "Capital Metro's spending cannot be sustained" (Sunset Advisory Commission, 2010). As a result, the Sunset Advisory Commission directed Capital Metro to revise paratransit policies that go beyond what is required by the ADA in order to achieve a 10% reduction in costs. Five major policy changes outlined in this paper will substantially change Capital Metro's MetroAccess program and allow it to achieve the Sunset Commission's mandated efficiency target of 10%. These five policies were specifically chosen as a direct response to the Sunset Commission's directive to seek the 10% cost reduction by "revising policies that exceed Americans with Disabilities Act requirements" (Sunset Advisory Commission, 2010).

1. Eligibility to receive paratransit - $1,186,860 cost savings
2. Taxi voucher program - $1,507,500 cost savings
3. "Open Return" program – $105,958 cost avoidance
4. Three-quarter mile service area - $1,032,614 cost savings
5. Door-through-Door - $759,462 cost avoidance

The total value of these five policy changes combined could be as high as $4,592,394 for Capital Metro. Of this total, $3,726,974 would be true cost reductions and $865,420 would be cost avoidance. The cost avoidance amount is identified as money that could not be identified and taken out of the budget directly whereas cost reductions represent a measurable reduction in budget. The cost avoidance savings are vital to

maintain because they represent money that must be committed in the future above and beyond the current spending levels.

Applying only the $3,726,974 cost reductions to the current fiscal year 2010 MetroAccess budget of $30,157,468 would translate into an estimated 12.3% cost reduction. A 12.3% cost reduction to the budget is more than the 10% required by the Sunset Commission. Taking into consideration that this is only an estimated cost savings in relation to the fiscal year 2010 budget the 12.3% is an appropriate projected cost reduction goal.

It is vital to emphasize that all of these policy changes must be implemented to their fullest extent with no compromise to the recommendations. Any reduction to the three cost reduction measures could result in non-compliance with the Sunset Advisory Commission's mandate and any weakening to the cost avoidance measures will only serve to diminish the cost reduction measures in future budget cycles.

The April 2010 audit from the Sunset Advisory Commission is very critical of Capital Metro's ability to control finances in the MetroAccess paratransit program. This paper outlines five policy changes that must be made to significantly reduce unnecessary spending within this department. Through this paper Capital Metro now has an action plan outlined to comply with the directive set forward from the Sunset Advisory Commission to gain a 10% reduction in paratransit costs.

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